

WHAT IS CLAIMED IS:

1. A peripheral device control apparatus for realizing a function designated by the user by controlling a peripheral device, comprising:

5 installation function information obtaining means for obtaining installation function information showing what functions have been installed or what functions are not installed among functions which are realized by communicating with said peripheral
10 device;

 display control means for controlling a process to display the installed functions or/and the functions which are not installed so that they can be discriminated by using the installation function
15 information obtained by said installation function information obtaining means;

 receiving means for receiving an instruction of addition, updating, or deletion of the functions displayed by the displaying process which is
20 controlled by said display control means; and

 function managing means for executing at least one of a process to add and validate the function received by said receiving means, a process to delete and invalidate said designated function, and a
25 process to update the function as an updating target to another designated function and validate said another designated function in accordance with the

instruction received by said receiving means.

2. An apparatus according to claim 1, wherein
said installation function information obtaining
5 means searches for the installation function
information and obtains it.

3. An apparatus according to claim 1, wherein
on the basis of the instruction received by said
10 receiving means, said function managing means
executes operations including obtainment, updating,
and deletion of a plug-in program having the
designated function.

15 4. An apparatus according to claim 1, wherein
said display control means separately displays
function information regarding the functions which
have already been validated and function information
regarding the functions which have already been
20 invalidated.

5. An apparatus according to claim 2, wherein
said installation function information obtaining
means searches for said functions with respect to
25 other information apparatuses connected via a network
as targets.

6. An apparatus according to claim 2, wherein
said installation function information obtaining
means searches for said functions with respect to
removable media, as a target, connected to an
5 information apparatus in which said peripheral device
control apparatus operates.

7. An apparatus according to claim 1, wherein
said receiving means displays a list of said
10 functions which have already been installed and a
list of said functions which are not installed and,
further, displays an instructing unit for instructing
the adding operation of the function, the updating
operation of the function, or the deleting operation
15 of the function, and

said instructing unit allows a specific one or
a plurality of functions to be selected from the list
of said functions which have already been installed
or the list of said functions which are not installed
20 and can instruct one of the operations of the
deletion, the updating, and the addition.

8. An apparatus according to claim 1, wherein
said receiving means has both or one of an
25 instructing unit which can instruct to delete in a
lump the functions displayed in a list of said
functions which have already been installed and an

instructing unit which can instruct to add or update in a lump the functions displayed in a list of said functions which are not installed.

5 9. An apparatus according to claim 8, wherein said receiving means has an instructing unit for requesting to provide outline information of the functions displayed on the list of said functions which have already been installed or the list of said
10 functions which are not installed to the user.

 10. An apparatus according to claim 1, wherein said display control means displays a valid function display column for displaying the function
15 information regarding the installed functions obtained by said installation function information obtaining means and an invalid function display column for displaying the function information regarding the uninstalled functions obtained by said
20 installation function information obtaining means onto a printer function setting display screen,
 when the functions corresponding to the function information displayed in said valid function display column are updated or deleted and invalidated
25 by said function managing means, said display control means moves and displays the relevant function information onto said invalid function display column,

and

when the functions corresponding to the function information displayed in said invalid function display column are added or updated and
5 validated by said function managing means, said display means moves and displays the relevant function information onto said valid function display column.

10 11. A peripheral device control method of realizing a function designated by the user by controlling a peripheral device, comprising:

an installation function information obtaining
step of obtaining installation function information
15 showing what functions have been installed or what functions are not installed among functions which are realized by communicating with said peripheral device;

a display control step of controlling a process
20 to display the installed functions or/and the functions which are not installed so that they can be discriminated by using the installation function information obtained in said installation function information obtaining step;

25 a receiving step of receiving an instruction of addition, updating, or deletion of the functions displayed by the displaying process which is

controlled by said display control step; and

a function managing step of executing at least one of a process to add and validate the function received in said receiving step, a process to delete
5 and invalidate said designated function, and a process to update the function as an updating target to another designated function and validate said another designated function in accordance with the instruction received in said receiving step.

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12. A method according to claim 11, wherein in said installation function information obtaining step, the installation function information is searched and obtained.

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13. A method according to claim 11, wherein in said function managing step, operations including obtainment, updating, and deletion of a plug-in program having the designated function are executed
20 on the basis of the instruction received in said receiving step.

14. A method according to claim 11, wherein in said display control step, function information
25 regarding the functions which have already been validated and function information regarding the functions which have already been invalidated are

separately displayed.

15. A method according to claim 12, wherein in
said installation function information obtaining step,
5 said functions are searched with respect to other
information apparatuses connected via a network as
targets.

16. A method according to claim 12, wherein in
10 said installation function information obtaining step,
said functions are searched with respect to removable
media connected, as a target, to an information
apparatus in which said peripheral device control
method operates.

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17. A method according to claim 11, wherein in
said receiving step, a list of said functions which
have already been installed and a list of said
functions which are not installed are displayed and,
20 further, an instructing unit for instructing the
adding operation of the function, the updating
operation of the function, or the deleting operation
of the function is displayed, and

said instructing unit allows a specific one or
25 a plurality of functions to be selected from the list
of said functions which have already been installed
or the list of said functions which are not installed

and can instruct one of the operations of the deletion, the updating, and the addition.

18. A method according to claim 11, wherein
5 said receiving step has both or one of an instructing unit which can instruct to delete in a lump the functions displayed in a list of said functions which have already been installed and an instructing unit which can instruct to add or update in a lump the
10 functions displayed in a list of said functions which are not installed.

19. A method according to claim 18, wherein
said receiving step has an instructing unit for
15 requesting to provide outline information of the functions displayed on the list of said functions which have already been installed or the list of said functions which are not installed to the user.

20. A method according to claim 11, wherein
20 in said display control step, a valid function display column for displaying the function information regarding the installed functions obtained in said installation function information
25 obtaining step and an invalid function display column for displaying the function information regarding the uninstalled functions obtained in said installation

function information obtaining step are displayed on a printer function setting display screen,

when the functions corresponding to the function information displayed in said valid function display column are updated or deleted and invalidated in said function managing step, the relevant function information is moved and displayed onto said invalid function display column, and

when the functions corresponding to the function information displayed in said invalid function display column are added or updated and validated in said function managing step, the relevant function information is moved and displayed onto said valid function display column.

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21. A computer-readable storing medium which stores a control program for realizing a function designated by the user by controlling a peripheral device, wherein said control program allows a computer to execute:

an installation function information obtaining step of obtaining installation function information showing what functions have been installed or what functions are not installed among functions which are realized by communicating with said peripheral device;

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a display control step of controlling a process

to display the installed functions or/and the
functions which are not installed so that they can be
discriminated by using the installation function
information obtained in said installation function
5 information obtaining step;

a receiving step of receiving an instruction of
addition, updating, or deletion of the functions
displayed by the displaying process which is
controlled by said display control step; and

10 a function managing step of executing at least
one of a process to add and validate the function
received in said receiving step, a process to delete
and invalidate said designated function, and a
process to update the function as an updating target
15 to another designated function and validate said
another designated function in accordance with the
instruction received in said receiving step.

22. A peripheral device control apparatus for
20 realizing a function designated by the user by
controlling a peripheral device, comprising:

installation function information obtaining
device for obtaining installation function
information showing what functions have been
25 installed or what functions are not installed among
functions which are realized by communicating with
said peripheral device;

display control device for controlling a
process to display the installed functions or/and the
functions which are not installed so that they can be
discriminated by using the installation function
5 information obtained by said installation function
information obtaining device;

receiving device for receiving an instruction
of addition, updating, or deletion of the functions
displayed by the displaying process which is
10 controlled by said display control device; and

function managing device for executing at least
one of a process to add and validate the function
received by said receiving device, a process to
delete and invalidate said designated function, and a
15 process to update the function as an updating target
to another designated function and validate said
another designated function in accordance with the
instruction received by said receiving device.